#9

SEQUENCE LISTING

<110> Bristol-Myers Squibb Company

<120> A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRBMY6, EXPRESSED HIGHLY IN SMALL INTESTINE

<130> D0040NP/3053-4119US3

<140> US 09/966,422
<141> 2001-09-26

<150> 60/235,602
<151> 2000-09-27

<150> 60/306,604
<151> 2001-07-19

<150> 60/315,412
<151> 2001-08-28

<160> 81

<170> PatentIn version 3.0

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ggccttaacc cagatgcaca gactgagctt caggtcttgc ttaatatgac gaaaaattac 240

accaagacat gcggctttgt agtttatcaa aatgacaagc ttttccaatc aaaaactttt 300

acagctaaat cggattttag tcaaaaaatt atctcaagca aaactgatga aaatgagcaa 360

gatcagagtg cttctgttga catggtcttt agtccaaagt acaaccaaaa agaatttcaa 420

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tttgctgtat taatgacttt caaaaaggat tatcaatatc ccaaatcact tgacatatta 600

tccaacgttg gatgtgcact gtctgttact ggtctggctc tcacagttat atttcagatt 660

gtcaccagga aagtcagaaa aacctcagta acctgggttt tggtcaatct gtgcatatca 720

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acaagtgatg gtgacatcaa taatattgac tttgacaata atgacatacc caggacagac 840

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ttagtgacat ttacctggaa cgcactcagc gctgcacagc tctattacct tctaataagg 960

accatgaagc ctcttcctcg gcatttcatt cttttcatct cattaattgg atggggagtc 1020

ccagctatag tagtggctat aacagtggga gttatttatt ctcagaatgg aaataatcca 1080

cagtgggaat tagactaccg gcaagagaaa atctgctggc tggcaattcc agaacccaat 1140

ggtgttataa aaagtccgct gttgtggtca ttcatcgtac ctgtaaccat tatcctcatc 1200

agcaatgttg ttatgtttat tacaatctcg atcaaagtgc tgtggaagaa taaccagaac 1260

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ctatcgtcta ttgggagaag gaagtcattg ccttcagtga cgcggccgag gctgcgtgta 1560

aagatgtata atttcctcag gtcattgcca accttacatg aacgctttag gctactggaa 1620

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<212> PRT
<213> Homo sapiens

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Pro Ser Asn Val Arg Phe Ser Val Gln Lys Gly Ala Ser Ser Ser Leu
35 40 45

Val Ser Ser Ser Thr Phe Ile His Thr Asn Val Asp Gly Leu Asn Pro
50 55 60

Asp Ala Gln Thr Glu Leu Gln Val Leu Leu Asn Met Thr Lys Asn Tyr
65 70 75 80

Thr Lys Thr Cys Gly Phe Val Val Tyr Gln Asn Asp Lys Leu Phe Gln
85 90 95

Ser Lys Thr Phe Thr Ala Lys Ser Asp Phe Ser Gln Lys Ile Ile Ser
100 105 110

Ser Lys Thr Asp Glu Asn Glu Gln Asp Gln Ser Ala Ser Val Asp Met
115 120 125

Val Phe Ser Pro Lys Tyr Asn Gln Lys Glu Phe Gln Leu Tyr Ser Tyr
130 135 140

Ala Cys Val Tyr Trp Asn Leu Ser Ala Lys Asp Trp Asp Thr Tyr Gly
145 150 155 160

Cys Gln Lys Asp Lys Gly Thr Asp Gly Phe Leu Arg Cys Arg Cys Asn
165 170 175

His Thr Thr Asn Phe Ala Val Leu Met Thr Phe Lys Lys Asp Tyr Gln
180 185 190

Tyr Pro Lys Ser Leu Asp Ile Leu Ser Asn Val Gly Cys Ala Leu Ser
195 200 205

Val Thr Gly Leu Ala Leu Thr Val Ile Phe Gln Ile Val Thr Arg Lys
210 215 220

Val Arg Lys Thr Ser Val Thr Trp Val Leu Val Asn Leu Cys Ile Ser
225 230 235 240

Met Leu Ile Phe Asn Leu Leu Phe Val Phe Gly Ile Glu Asn Ser Asn
245 250 255

Lys Asn Leu Gln Thr Ser Asp Gly Asp Ile Asn Asn Ile Asp Phe Asp
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Asn Asn Asp Ile Pro Arg Thr Asp Thr Ile Asn Ile Pro Asn Pro Met
275 280 285

Cys Thr Ala Ile Ala Ala Leu Leu His Tyr Phe Leu Leu Val Thr Phe
290 295 300

Thr Trp Asn Ala Leu Ser Ala Ala Gln Leu Tyr Tyr Leu Leu Ile Arg
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Thr Met Lys Pro Leu Pro Arg His Phe Ile Leu Phe Ile Ser Leu Ile
325 330 335

Gly Trp Gly Val Pro Ala Ile Val Val Ala Ile Thr Val Gly Val Ile
340 345 350

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Glu Lys Ile Cys Trp Leu Ala Ile Pro Glu Pro Asn Gly Val Ile Lys
370 375 380

Ser Pro Leu Leu Trp Ser Phe Ile Val Pro Val Thr Ile Ile Leu Ile
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Ser Asn Val Val Met Phe Ile Thr Ile Ser Ile Lys Val Leu Trp Lys
405 410 415

Asn Asn Gln Asn Leu Thr Ser Thr Lys Lys Val Ser Ser Met Lys Lys
420 425 430

Ile Val Ser Thr Leu Ser Val Ala Val Val Phe Gly Ile Thr Trp Ile
435 440 445

Leu Ala Tyr Leu Met Leu Val Asn Asp Asp Ser Ile Arg Ile Val Phe
450 455 460

Ser Tyr Ile Phe Cys Leu Phe Asn Thr Thr Gln Gly Leu Gln Ile Phe
465 470 475 480

Ile Leu Tyr Thr Val Arg Thr Lys Val Phe Gln Ser Glu Ala Ser Lys
485 490 495

Val Leu Met Leu Leu Ser Ser Ile Gly Arg Arg Lys Ser Leu Pro Ser
500 505 510

Val Thr Arg Pro Arg Leu Arg Val Lys Met Tyr Asn Phe Leu Arg Ser
515 520 525

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<213> Homo sapiens

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catcagtttg tgaaaaagga ctgttgtttc atcaaatttc agcaaatgat gatcaatagc 180

acattaaaaa tggcttcatc tttgtggaag ttttgactgg atatagatcc ctgacatttg 240

agaccaaagg aaagcctctt gatggtgtaa ctggaccaga atgaagagaa agaaactatt 300

atcaaagacc cttggaaaca ggaaactcca aacctgatgc gggtctcagg gcagtatcta 360

tgagcaggtg aaatagaaag tacatctaac tagatgtttt ttcatgcaga ttaaattatt 420

ttgaccaaag ttgtacccaa atgcacatgc atggaagagc taacactagg ggacaagcaa 480

gggggaggaa gaggaaacca acctttatgt acagcctttc atgtgcctgg catgttgcat 540

atgttatcac atttaatcct tataaaactt ctgtgagttg aatgttattc ccatattata 600

aataattata gccaataaca cttactaatt gttgagcacc tactgcatgc caaatattgt 660

gccaaatatt aatgtattta ttagtttatc atatttaatt tttataacac cataaatagg 720

tattaatgta cacattttat agatgaggaa aatgtggttc tgagaggtga agcattttgc 780

ctagtgatca cagctaaaaa gtgatagagc tgttctttat tttaaagttc acattgtact 840

accctggctc cctaatcaca gatgggcagg gtaggggttg ggtggggaca gaagttggag 900

agtggatgtg gctgccaacc acacaagttg tgccaaccca cagattgagg aaagatgcta 960

aatttggaat ctggcaaacc agtgtttggt tcttagctct gccacttcta agctgtgtga 1020

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ccaagtgtga atagcctata acactggtat aatttgtgaa atgatgctgc catctagtga 1260

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atggacaccc agcttcacca atgacaatat ggattggcat gttttagcct cacaacacag 1380

agccctgggg ctaactggca cctagagagg tcatctcggc cagtgccttc caaactacca 1440

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accataaaaa taaattactg gaaaaatgaa ataaaaaata tgtataaaat acaaaccaaa 1560

attttagaac tgttagattc aacagcaaaa aattgctgta tacatctctg accaattgct 1620

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catggataca ctctagtagc cccaatctag ctaaggcagc cccttatagt taatcaatcc 1740

tgtcaaacag gaaaggctgg caaaaccact ggtctgcatg tactttgtcc tttacacaag 1800

gaaggatgca aacgtggaaa actgagtgga catggtgttc aggagattga ggctcagcta 1860

aattccagct tatttacctg cagttgctta caaagtgttt ggacataatt gtgtaaagct 1920

agggtttttt ttctggtttt taaaacaggt aaaggatgtc acagcaccac ttaataacat 1980

ttcttctgaa gtccagattt taacatctga tgccaataaa ttaactgctg agaacatcac 2040

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aaagaaagtt gccatagtaa cagtgagtca actcctagat gccagtgaag atgcttttca 2160

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aattagataa aacctgttgt ttattattat tcggcataat ggacttggta gtttttctat 180

ttttcaatag atttgtactt gaataaggtg aagaatttca cacaacatac aagagtacca 240

ttgttcctta tatcgttaaa tctttgtgac acactttgac aaaaatgtag aacctataac 300

aaattctttt acaagttact ataaaggaca caaagagaaa actttacctt ccagaacaaa 360

atgactcctg atgaacagtg tgtggggatt tgcttgtatg tattaaactt ttgacctctg 420

aaaaaaaaaa aaaaaaaaaa aaaaaaaag 449

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<212> DNA
<213> Artificial

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cggcaatcgc agtgcacatg 80

<210> 6
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<212> DNA
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<400> 6
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<400> 8

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35 40 45

Asp Val Ile Met Ile Glu Ser Ala Asn Tyr Gly Arg Thr Asp Asp Lys
50 55 60

Ile Cys Asp Ser Asp Pro Ala Gln Met Glu Asn Ile Arg Cys Tyr Leu
65 70 75 80

Pro Asp Ala Tyr Lys Ile Met Ser Gln Arg Cys Asn Asn Arg Thr Gln
85 90 95

Cys Ala Val Val Ala Gly Pro Asp Val Phe Pro Asp Pro Cys Pro Gly
100 105 110

Thr Tyr Lys Tyr Leu Glu Val Gln Tyr Glu Cys Val Pro Tyr Lys Val
115 120 125

Glu Gln Lys Val Phe Leu Cys Pro Gly Leu Leu Lys Gly Val Tyr Gln
130 135 140

Ser Glu His Leu Phe Glu Ser Asp His Gln Ser Gly Ala Trp Cys Lys
145 150 155 160

Asp Pro Leu Gln Ala Ser Asp Lys Ile Tyr Tyr Met Pro Trp Thr Pro
165 170 175

Tyr Arg Thr Asp Thr Leu Thr Glu Tyr Ser Ser Lys Asp Asp Phe Ile
180 185 190

Ala Gly Arg Pro Thr Thr Thr Tyr Lys Leu Pro His Arg Val Asp Gly
195 200 205

Thr Gly Phe Val Val Tyr Asp Gly Ala Leu Phe Phe Asn Lys Glu Arg
210 215 220

Thr Arg Asn Ile Val Lys Phe Asp Leu Arg Thr Arg Ile Lys Ser Gly
225 230 235 240

Glu Ala Ile Ile Ala Asn Ala Asn Tyr His Asp Thr Ser Pro Tyr Arg
245 250 255

Trp Gly Gly Lys Ser Asp Ile Asp Leu Ala Val Asp Glu Asn Gly Leu
260 265 270

Trp Val Ile Tyr Ala Thr Glu Gln Asn Asn Gly Lys Ile Val Ile Ser
275 280 285

Gln Leu Asn Pro Tyr Thr Leu Arg Ile Glu Gly Thr Trp Asp Thr Ala
290 295 300

Tyr Asp Lys Arg Ser Ala Ser Asn Ala Phe Met Ile Cys Gly Ile Leu
305 310 315 320

Tyr Val Val Lys Ser Val Tyr Glu Asp Asp Asp Asn Glu Ala Thr Gly
325 330 335

Asn Lys Ile Asp Tyr Ile Tyr Asn Thr Asp Gln Ser Lys Asp Ser Leu
340 345 350

Val Asp Val Pro Phe Pro Asn Ser Tyr Gln Tyr Ile Ala Ala Val Asp
355 360 365

Tyr Asn Pro Arg Asp Asn Leu Leu Tyr Val Trp Asn Asn Tyr His Val
370 375 380

Val Lys Tyr Ser Leu Asp Phe Gly Pro Leu Asp Ser Arg Ser Gly Pro
385 390 395 400

Val His His Gly Gln Val Ser Tyr Ile Ser Pro Pro Ile His Leu Asp
405 410 415

Ser Asp Leu Glu Arg Pro Pro Val Arg Gly Ile Ser Thr Thr Gly Pro
420 425 430

Leu Gly Met Gly Ser Thr Thr Thr Ser Thr Thr Leu Arg Thr Thr Thr
435 440 445

Trp Asn Leu Gly Arg Ser Thr Thr Pro Ser Leu Pro Gly Arg Arg Asn
450 455 460

Arg Ser Thr Ser Thr Pro Ser Pro Ala Ile Glu Val Leu Asp Val Thr
465 470 475 480

Thr His Leu Pro Ser Ala Ala Ser Gln Ile Pro Ala Met Glu Glu Ser
485 490 495

Cys Glu Ala Val Glu Ala Arg Glu Ile Met Trp Phe Lys Thr Arg Gln
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Gly Gln Val Ala Lys Gln Ser Cys Pro Ala Gly Thr Ile Gly Val Ser
515 520 525

Thr Tyr Leu Cys Leu Ala Pro Asp Gly Ile Trp Asp Pro Gln Gly Pro
530 535 540

Asp Leu Ser Asn Cys Ser Ser Pro Trp Val Asn His Ile Thr Gln Lys
545 550 555 560

Leu Lys Ser Gly Glu Thr Ala Ala Asn Ile Ala Arg Glu Leu Ala Glu
565 570 575

Gln Thr Arg Asn His Leu Asn Ala Gly Asp Ile Thr Tyr Ser Val Arg
580 585 590

Ala Met Asp Gln Leu Val Gly Leu Leu Asp Val Gln Leu Arg Asn Leu
595 600 605

Thr Pro Gly Gly Lys Asp Ser Ala Ala Arg Ser Leu Asn Lys Leu Gln
610 615 620

Lys Arg Glu Arg Ser Cys Arg Ala Tyr Val Gln Ala Met Val Glu Thr
625 630 635 640

Val Asn Asn Leu Leu Gln Pro Gln Ala Leu Asn Ala Trp Arg Asp Leu
645 650 655

Thr Thr Ser Asp Gln Leu Arg Ala Ala Thr Met Leu Leu Asp Thr Val
660 665 670

Glu Glu Ser Ala Phe Val Leu Ala Asp Asn Leu Leu Lys Thr Asp Ile
675 680 685

Val Arg Glu Asn Thr Asp Asn Ile Gln Leu Glu Val Ala Arg Leu Ser
690 695 700

Thr Glu Gly Asn Leu Glu Asp Leu Lys Phe Pro Glu Asn Thr Gly His
705 710 715 720

Gly Ser Thr Ile Gln Leu Ser Ala Asn Thr Leu Lys Gln Asn Gly Arg
725 730 735

Asn Gly Glu Ile Arg Val Ala Phe Val Leu Tyr Asn Asn Leu Gly Pro
740 745 750

Tyr Leu Ser Thr Glu Asn Ala Ser Met Lys Leu Gly Thr Glu Ala Met
755 760 765

Ser Thr Asn His Ser Val Ile Val Asn Ser Pro Val Ile Thr Ala Ala
770 775 780

Ile Asn Lys Glu Phe Ser Asn Lys Val Tyr Leu Ala Asp Pro Val Val
785 790 795 800

Phe Thr Val Lys His Ile Lys Gln Ser Glu Glu Asn Phe Asn Pro Asn
805 810 815

Cys Ser Phe Trp Ser Tyr Ser Lys Arg Thr Met Thr Gly Tyr Trp Ser
820 825 830

Thr Gln Gly Cys Arg Leu Leu Thr Thr Asn Lys Thr His Thr Thr Cys
835 840 845

Ser Cys Asn His Leu Thr Asn Phe Ala Val Leu Met Ala His Val Glu
850 855 860

Val Lys His Ser Asp Ala Val His Asp Leu Leu Leu Asp Val Ile Thr
865 870 875 880

Trp Val Gly Ile Leu Leu Ser Leu Val Cys Leu Leu Ile Cys Ile Phe
885 890 895

Thr Phe Cys Phe Phe Arg Gly Leu Gln Ser Asp Arg Asn Thr Ile His
900 905 910

Lys Asn Leu Cys Ile Ser Leu Phe Val Ala Glu Leu Leu Phe Leu Ile
915 920 925

Gly Ile Asn Arg Thr Asp Gln Pro Ile Ala Cys Ala Val Phe Ala Ala
930 935 940

Leu Leu His Phe Phe Phe Leu Ala Ala Phe Thr Trp Met Phe Leu Glu
945 950 955 960

Gly Val Gln Leu Tyr Ile Met Leu Val Glu Val Phe Glu Ser Glu His
965 970 975

Ser Arg Arg Lys Tyr Phe Tyr Leu Val Gly Tyr Gly Met Pro Ala Leu
980 985 990

Ile Val Ala Val Ser Ala Ala Val Asp Tyr Arg Ser Tyr Gly Thr Asp
995 1000 1005

Lys Val Cys Trp Leu Arg Leu Asp Thr Tyr Phe Ile Trp Ser Phe
1010 1015 1020

Ile Gly Pro Ala Thr Leu Ile Ile Met Leu Asn Val Ile Phe Leu
1025 1030 1035

Gly Ile Ala Leu Tyr Lys Met Phe His His Thr Ala Ile Leu Lys
1040 1045 1050

Pro Glu Ser Gly Cys Leu Asp Asn Ile Lys Ser Trp Val Ile Gly
1055 1060 1065

Ala Ile Ala Leu Leu Cys Leu Leu Gly Leu Thr Trp Ala Phe Gly
1070 1075 1080

Leu Met Tyr Ile Asn Glu Ser Thr Val Ile Met Ala Tyr Leu Phe
1085 1090 1095

Thr Ile Phe Asn Ser Leu Gln Gly Met Phe Ile Phe Ile Phe His
1100 1105 1110

Cys Val Leu Gln Lys Lys Val Arg Lys Glu Tyr Gly Lys Cys Leu
1115 1120 1125

Arg Thr His Cys Cys Ser Gly Lys Ser Thr Glu Ser Ser Ile Gly
1130 1135 1140

Ser Gly Lys Thr Ser Gly Ser Arg Thr Pro Gly Arg Tyr Ser Thr
1145 1150 1155

Gly Ser Gln Ser Arg Ile Arg Arg Met Trp Asn Asp Thr Val Arg
1160 1165 1170

Lys Gln Ser Glu Ser Ser Phe Ile Thr Gly Asp Ile Asn Ser Ser
1175 1180 1185

Ala Ser Leu Asn Arg Glu Pro Tyr Arg Glu Thr Ser Met Gly Val
1190 1195 1200

Lys Leu Asn Ile Ala Tyr Gln Ile Gly Ala Ser Glu Gln Cys Gln
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1220 1225 1230

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<400> 9

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35 40 45

Leu Leu Gln Gln Pro Ala Ala Glu Arg Ser Thr Ala His Arg Gly Gln
50 55 60

Gly Pro Arg Gly Thr Ala Arg Gly Val Arg Gly Pro Gly Ala Pro Gly
65 70 75 80

Ala Gln Ile Ala Ala Gln Ala Phe Ser Arg Ala Pro Ile Pro Met Ala
85 90 95

Val Val Arg Arg Glu Leu Ser Cys Glu Ser Tyr Pro Ile Glu Leu Arg
100 105 110

Cys Pro Gly Thr Asp Val Ile Met Ile Glu Ser Ala Asn Tyr Gly Arg
115 120 125

Thr Asp Asp Lys Ile Cys Asp Ser Asp Pro Ala Gln Met Glu Asn Ile
130 135 140

Arg Cys Tyr Leu Pro Asp Ala Tyr Lys Ile Met Ser Gln Arg Cys Asn
145 150 155 160

Asn Arg Thr Gln Cys Ala Val Val Ala Gly Pro Asp Val Phe Pro Asp
165 170 175

Pro Cys Pro Gly Thr Tyr Lys Tyr Leu Glu Val Gln Tyr Glu Cys Val
180 185 190

Pro Tyr Lys Val Glu Gln Lys Val Phe Leu Cys Pro Gly Leu Leu Lys
195 200 205

Gly Val Tyr Gln Ser Glu His Leu Phe Glu Ser Asp His Gln Ser Gly
210 215 220

Ala Trp Cys Lys Asp Pro Leu Gln Ala Ser Asp Lys Ile Tyr Tyr Met
225 230 235 240

Pro Trp Thr Pro Tyr Arg Thr Asp Thr Leu Thr Glu Tyr Ser Ser Lys
245 250 255

Asp Asp Phe Ile Ala Gly Arg Pro Thr Thr Thr Tyr Lys Leu Pro His
260 265 270

Arg Val Asp Gly Thr Gly Phe Val Val Tyr Asp Gly Ala Leu Phe Phe
275 280 285

Asn Lys Glu Arg Thr Arg Asn Ile Val Lys Phe Asp Leu Arg Thr Arg
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Ile Lys Ser Gly Glu Ala Ile Ile Ala Asn Ala Asn Tyr His Asp Thr
305 310 315 320

Ser Pro Tyr Arg Trp Gly Gly Lys Ser Asp Ile Asp Leu Ala Val Asp
325 330 335

Glu Asn Gly Leu Trp Val Ile Tyr Ala Thr Glu Gln Asn Asn Gly Lys
340 345 350

Ile Val Ile Ser Gln Leu Asn Pro Tyr Thr Leu Arg Ile Glu Gly Thr
355 360 365

Trp Asp Thr Ala Tyr Asp Lys Arg Ser Ala Ser Asn Ala Phe Met Ile
370 375 380

Cys Gly Ile Leu Tyr Val Val Lys Ser Val Tyr Glu Asp Asp Asp Asn
385 390 395 400

Glu Ala Thr Gly Asn Lys Ile Asp Tyr Ile Tyr Asn Thr Asp Gln Ser
405 410 415

Lys Asp Ser Leu Val Asp Val Pro Phe Pro Asn Ser Tyr Gln Tyr Ile
420 425 430

Ala Ala Val Asp Tyr Asn Pro Arg Asp Asn Leu Leu Tyr Val Trp Asn
435 440 445

Asn Tyr His Val Val Lys Tyr Ser Leu Asp Phe Gly Pro Leu Asp Ser
450 455 460

Arg Ser Gly Pro Val His His Gly Gln Val Ser Tyr Ile Ser Pro Pro
465 470 475 480

Ile His Leu Asp Ser Asp Leu Glu Arg Pro Pro Val Arg Gly Ile Ser
485 490 495

Thr Thr Gly Pro Leu Gly Met Gly Ser Thr Thr Thr Ser Thr Thr Leu
500 505 510

Arg Thr Thr Thr Trp Asn Leu Gly Arg Ser Thr Thr Pro Ser Leu Pro
515 520 525

Gly Arg Arg Asn Arg Ser Thr Ser Thr Pro Ser Pro Ala Ile Glu Val
530 535 540

Leu Asp Val Thr Thr His Leu Pro Ser Ala Ala Ser Gln Ile Pro Ala
545 550 555 560

Met Glu Glu Ser Cys Glu Ala Val Glu Ala Arg Glu Ile Met Trp Phe
565 570 575

Lys Thr Arg Gln Gly Gln Val Ala Lys Gln Ser Cys Pro Ala Gly Thr
580 585 590

Ile Gly Val Ser Thr Tyr Leu Cys Leu Ala Pro Asp Gly Ile Trp Asp
595 600 605

Pro Gln Gly Pro Asp Leu Ser Asn Cys Ser Ser Pro Trp Val Asn His
610 615 620

Ile Thr Gln Lys Leu Lys Ser Gly Glu Thr Ala Ala Asn Ile Ala Arg
625 630 635 640

Glu Leu Ala Glu Gln Thr Arg Asn His Leu Asn Ala Gly Asp Ile Thr
645 650 655

Tyr Ser Val Arg Ala Met Asp Gln Leu Val Gly Leu Leu Asp Val Gln
660 665 670

Leu Arg Asn Leu Thr Pro Gly Gly Lys Asp Ser Ala Ala Arg Ser Leu
675 680 685

Asn Lys Leu Gln Lys Arg Glu Arg Ser Cys Arg Ala Tyr Val Gln Ala
690 695 700

Met Val Glu Thr Val Asn Asn Leu Leu Gln Pro Gln Ala Leu Asn Ala
705 710 715 720

Trp Arg Asp Leu Thr Thr Ser Asp Gln Leu Arg Ala Ala Thr Met Leu
725 730 735

Leu Asp Thr Val Glu Glu Ser Ala Phe Val Leu Ala Asp Asn Leu Leu
740 745 750

Lys Thr Asp Ile Val Arg Glu Asn Thr Asp Asn Ile Gln Leu Glu Val
755 760 765

Ala Arg Leu Ser Thr Glu Gly Asn Leu Glu Asp Leu Lys Phe Pro Glu
770 775 780

Asn Thr Gly His Gly Ser Thr Ile Gln Leu Ser Ala Asn Thr Leu Lys
785 790 795 800

Gln Asn Gly Arg Asn Gly Glu Ile Arg Val Ala Phe Val Leu Tyr Asn
805 810 815

Asn Leu Gly Pro Tyr Leu Ser Thr Glu Asn Ala Ser Met Lys Leu Gly
820 825 830

Thr Glu Ala Met Ser Thr Asn His Ser Val Ile Val Asn Ser Pro Val
835 840 845

Ile Thr Ala Ala Ile Asn Lys Glu Phe Ser Asn Lys Val Tyr Leu Ala
850 855 860

Asp Pro Val Val Phe Thr Val Lys His Ile Lys Gln Ser Glu Glu Asn
865 870 875 880

Phe Asn Pro Asn Cys Ser Phe Trp Ser Tyr Ser Lys Arg Thr Met Thr
885 890 895

Gly Tyr Trp Ser Thr Gln Gly Cys Arg Leu Leu Thr Thr Asn Lys Thr
900 905 910

His Thr Thr Cys Ser Cys Asn His Leu Thr Asn Phe Ala Val Leu Met
915 920 925

Ala His Val Glu Val Lys His Ser Asp Ala Val His Asp Leu Leu Leu
930 935 940

Asp Val Ile Thr Trp Val Gly Ile Leu Leu Ser Leu Val Cys Leu Leu
945 950 955 960

Ile Cys Ile Phe Thr Phe Cys Phe Phe Arg Gly Leu Gln Ser Asp Arg
965 970 975

Asn Thr Ile His Lys Asn Leu Cys Ile Ser Leu Phe Val Ala Glu Leu
980 985 990

Leu Phe Leu Ile Gly Ile Asn Arg Thr Asp Gln Pro Ile Ala Cys Ala
995 1000 1005

Val Phe Ala Ala Leu Leu His Phe Phe Phe Leu Ala Ala Phe Thr
1010 1015 1020

Trp Met Phe Leu Glu Gly Val Gln Leu Tyr Ile Met Leu Val Glu
1025 1030 1035

Val Phe Glu Ser Glu His Ser Arg Arg Lys Tyr Phe Tyr Leu Val
1040 1045 1050

Gly Tyr Gly Met Pro Ala Leu Ile Val Ala Val Ser Ala Ala Val
1055 1060 1065

Asp Tyr Arg Ser Tyr Gly Thr Asp Lys Val Cys Trp Leu Arg Leu
1070 1075 1080

Asp Thr Tyr Phe Ile Trp Ser Phe Ile Gly Pro Ala Thr Leu Ile
1085 1090 1095

Ile Met Leu Asn Val Ile Phe Leu Gly Ile Ala Leu Tyr Lys Met
1100 1105 1110

Phe His His Thr Ala Ile Leu Lys Pro Glu Ser Gly Cys Leu Asp
1115 1120 1125

Asn Ile Lys Ser Trp Val Ile Gly Ala Ile Ala Leu Leu Cys Leu
1130 1135 1140

Leu Gly Leu Thr Trp Ala Phe Gly Leu Met Tyr Ile Asn Glu Ser
1145 1150 1155

Thr Val Ile Met Ala Tyr Leu Phe Thr Ile Phe Asn Ser Leu Gln
1160 1165 1170

Gly Met Phe Ile Phe Ile Phe His Cys Val Leu Gln Lys Lys Val
1175 1180 1185

Arg Lys Glu Tyr Gly Lys Cys Leu Arg Thr His Cys Cys Ser Gly
1190 1195 1200

Lys Ser Thr Glu Ser Ser Ile Gly Ser Gly Lys Thr Ser Gly Ser
1205 1210 1215

Arg Thr Pro Gly Arg Tyr Ser Thr Gly Ser Gln Ser Arg Ile Arg
1220 1225 1230

Arg Met Trp Asn Asp Thr Val Arg Lys Gln Ser Glu Ser Ser Phe
1235 1240 1245

Ile Thr Gly Asp Ile Asn Ser Ser Ala Ser Leu Asn Arg Glu Gly
1250 1255 1260

Leu Leu Asn Asn Ala Arg Asp Thr Ser Val Met Asp Thr Leu Pro
1265 1270 1275

Leu Asn Gly Asn His Gly Asn Ser Tyr Ser Ile Ala Gly Gly Glu
1280 1285 1290

Tyr Leu Ser Asn Cys Val Gln Ile Ile Asp Arg Gly Tyr Asn His
1295 1300 1305

Asn Glu Thr Ala Leu Glu Lys Lys Ile Leu Lys Glu Leu Thr Ser
1310 1315 1320

Asn Tyr Ile Pro Ser Tyr Leu Asn Asn His Glu Arg Ser Ser Glu
1325 1330 1335

Gln Asn Arg Asn Met Met Asn Lys Leu Val Asp Asn Leu Gly Ser
1340 1345 1350

Gly Ser Glu Asp Asp Ala Ile Val Leu Asp Asp Ala Ala Ser Phe
1355 1360 1365

Asn His Glu Glu Ser Leu Gly Leu Glu Leu Ile His Glu Glu Ser
1370 1375 1380

Asp Ala Pro Leu Leu Pro Pro Arg Val Tyr Ser Thr Asp Asn His
1385 1390 1395

Gln Pro His His Tyr Ser Arg Arg Arg Leu Pro Gln Asp His Ser
1400 1405 1410

Glu Ser Phe Phe Pro Leu Leu Thr Asp Glu His Thr Glu Asp Pro
1415 1420 1425

Gln Ser Pro His Arg Asp Ser Leu Tyr Thr Ser Met Pro Ala Leu
1430 1435 1440

Ala Gly Val Pro Ala Ala Asp Ser Val Thr Thr Ser Thr Gln Thr
1445 1450 1455

Glu Ala Ala Ala Ala Lys Gly Gly Asp Ala Glu Asp Val Tyr Tyr
1460 1465 1470

Lys Ser Met Pro Asn Leu Gly Ser Arg Asn His Val His Pro Leu
1475 1480 1485

His Ala Tyr Tyr Gln Leu Gly Arg Gly Ser Ser Asp Gly Phe Ile
1490 1495 1500

Val Pro Pro Asn Lys Asp Gly Ala Ser Pro Glu Gly Thr Ser Lys
1505 1510 1515

Gly Pro Ala His Leu Val Thr Ser Leu
1520 1525

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<212> PRT
<213> Homo sapiens

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Met Asp Phe Glu Ser Gly Gln Val Asp Pro Leu Ala Ser Val Ile Leu
1 5 10 15

Pro Pro Asn Leu Leu Glu Asn Leu Ser Pro Glu Asp Ser Val Leu Val
20 25 30

Arg Arg Ala Gln Phe Thr Phe Phe Asn Lys Thr Gly Leu Phe Gln Asp
35 40 45

Val Gly Pro Gln Arg Lys Thr Leu Val Ser Tyr Val Met Ala Cys Ser
50 55 60

Ile Gly Asn Ile Thr Ile Gln Asn Leu Lys Asp Pro Val Gln Ile Lys
65 70 75 80

Ile Lys His Thr Arg Thr Gln Glu Val His His Pro Ile Cys Ala Phe
85 90 95

Trp Asp Leu Asn Lys Asn Lys Ser Phe Gly Gly Trp Asn Thr Ser Gly

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            100                 105                 110

Cys Val Ala His Arg Asp Ser Asp Ala Ser Glu Thr Val Cys Leu Cys
        115                 120                 125

Asn His Phe Thr His Phe Gly Val Leu Met Asp Leu Pro Arg Ser Ala
    130                 135                 140

Ser Gln Leu Asp Ala Arg Asn Thr Lys Val Leu Thr Phe Ile Ser Tyr
145                 150                 155                 160

Ile Gly Cys Gly Ile Ser Ala Ile Phe Ser Ala Ala Thr Leu Leu Thr
                165                 170                 175

Tyr Val Ala Phe Glu Lys Leu Arg Arg Asp Tyr Pro Ser Lys Ile Leu
            180                 185                 190

Met Asn Leu Ser Thr Ala Leu Leu Phe Leu Asn Leu Leu Phe Leu Leu
        195                 200                 205

Asp Gly Trp Ile Thr Ser Phe Asn Val Asp Gly Leu Cys Ile Ala Val
    210                 215                 220

Ala Val Leu Leu His Phe Phe Leu Leu Ala Thr Phe Thr Trp Met Gly
225                 230                 235                 240

Leu Glu Ala Ile His Met Tyr Ile Ala Leu Val Lys Val Phe Asn Thr
                245                 250                 255

Tyr Ile Arg Arg Tyr Ile Leu Lys Phe Cys Ile Ile Gly Trp Gly Leu
            260                 265                 270

Pro Ala Leu Val Val Ser Val Val Leu Ala Ser Arg Asn Asn Asn Glu
        275                 280                 285

Val Tyr Gly Lys Glu Ser Tyr Gly Lys Glu Lys Gly Asp Glu Phe Cys
    290                 295                 300

Trp Ile Gln Asp Pro Val Ile Phe Tyr Val Thr Cys Ala Gly Tyr Phe
305                 310                 315                 320

Gly Val Met Phe Phe Leu Asn Ile Ala Met Phe Ile Val Val Met Val
                325                 330                 335

Gln Ile Cys Gly Arg Asn Gly Lys Arg Ser Asn Arg Thr Leu Arg Glu
            340                 345                 350

Glu Val Leu Arg Asn Leu Arg Ser Val Val Ser Leu Thr Phe Leu Leu
        355                 360                 365

Gly Met Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Leu Asn Ile
    370                 375                 380

Pro Phe Met Tyr Leu Phe Ser Ile Phe Asn Ser Leu Gln Gly Leu Phe
385                 390                 395                 400

Ile Phe Ile Phe His Cys Ala Met Lys Glu Asn Val Gln Lys Gln Trp
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405 410 415

Arg Gln His Leu Cys Cys Gly Arg Phe Arg Leu Ala Asp Asn Ser Asp
420 425 430

Trp Ser Lys Thr Ala Thr Asn Ile Ile Lys Lys Ser Ser Asp Asn Leu
435 440 445

Gly Lys Ser Leu Ser Ser Ser Ser Ile Gly Ser Asn Ser Thr Tyr Leu
450 455 460

Thr Ser Lys Ser Lys Ser Ser Ser Thr Thr Tyr Phe Lys Arg Asn Ser
465 470 475 480

His Thr Asp Ser Ala Ser Met Asp Lys Ser Leu Ser Lys Leu Ala His
485 490 495

Ala Asp Gly Asp Gln Thr Ser Ile Ile Pro Val His Gln Val Ile Asp
500 505 510

Lys Val Lys Gly Tyr Cys Asn Ala His Ser Asp Asn Phe Tyr Lys Asn
515 520 525

Ile Ile Met Ser Asp Thr Phe Ser His Ser Thr Lys Phe
530 535 540

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<211> 1582
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<213> Caenorhabditis elegans

<400> 11

Met Ala Thr Ala Ser Thr Glu Ile Ser Glu Phe Ser Glu Ala Ile Glu
1 5 10 15

Ser Thr Phe Asp Leu Asp Phe Thr Ala His Gln Thr Glu Ile Ile Gly
20 25 30

Thr Tyr Trp Asn Leu Arg Ala Leu Leu Arg Leu His Arg Ser Leu Val
35 40 45

Ala Ile Asp His Val Ser Gln Lys Ser Phe Trp Glu Arg Tyr Asn His
50 55 60

Trp Ile Gln Leu Ser Met Leu Val Ser Asn Gln Asn Val Asn Leu Cys
65 70 75 80

Gln Ser Asn Ile Cys Gln Asn Gly Gly Thr Cys Leu Val Ala Ser Ser
85 90 95

Val Pro Ala Thr Ala Thr Cys Pro Lys Asn Ser Ile Tyr Tyr Met Gly
100 105 110

Ser Cys Tyr Val Phe Asp Thr Thr Leu Arg Asn Trp Asn Asp Ala Ala
115 120 125

Leu Tyr Cys Asn Asn Met Asn Ser Ala Thr Leu Pro Leu Val Glu Ser
130 135 140

Ala Glu Asp Gln Ala Phe Phe Ala Gly Tyr Leu Gln Ala Met Ile Pro
145 150 155 160

Ser Asn Pro Pro Ala Asp Met Arg Pro Pro Pro Asp Gly Ile Trp Thr
165 170 175

Ala Val Arg Gly Val Asn Asn Val Thr Arg Ala Ser Trp Val Tyr Tyr
180 185 190

Pro Gly Ser Phe Leu Val Thr Asp Thr Phe Trp Ala Pro Gln Glu Pro
195 200 205

Asn Ile Tyr Val Asn Tyr Asn Asp Val Cys Val Ala Leu Gln Ser Asp
210 215 220

Ser Phe Tyr Arg Glu Trp Thr Thr Ala Leu Cys Thr Ile Leu Lys Tyr
225 230 235 240

Thr Val Cys Lys Val Ala Pro Thr Gln Ile Gln Ala Lys Tyr Val Ala
245 250 255

Gln Cys Ser Cys Pro Asn Gly Tyr Gly Gly Gln Thr Cys Glu Thr Gln
260 265 270

Ser Thr Thr Asn Gln Gln Ala Ser Thr Gln Arg Thr Cys Gly Ser Asn
275 280 285

Asp Phe Gln Phe Ser Cys Pro Asn Asp Gln Thr Ile Thr Val Asp Phe
290 295 300

Ala Ser Phe Gly Ala Gln Gly Gly Ser Ile Ile Thr Ser Pro Pro Asp
305 310 315 320

Ala Leu Leu Gln Gln Ile Val Gln Lys Val Asn Ala Glu Thr Lys Lys
325 330 335

Thr Val Asn Phe Trp Ile Gly Thr Pro Asn Asn Cys Gln Leu Leu Met
340 345 350

Val Thr Gly Ser Ser Thr Ser Tyr Ser Gln Cys Pro Ser Ser Pro Ser
355 360 365

Ser Thr Ala Asn Val Ile Cys Ser Thr Val Pro Gln Ser Thr Ala Ser
370 375 380

Val Ser Ala Arg Pro Thr Gln Ser Ala Pro Val Asp Pro Val Ser Gln
385 390 395 400

Thr Met Ala Arg Arg Glu Val Tyr Thr Gly Val Gln Pro Ile Ala Ser
405 410 415

Ala Leu Gly Gly Gln Ser Lys Lys Thr Asn Arg Lys Leu Asn Asn Ile
420 425 430

Cys Gln Thr Lys Ile Gly Ala Pro Leu Ser Leu Phe Leu Phe Ser Arg
435 440 445

Asn Glu Val Ile Thr Gly Phe Val Cys Ile Ser Leu Ile Ser Ala Ser
450 455 460

Pro Gln Ile Ile Tyr Tyr Leu Cys Ala Val Ser Leu Ile Cys His Pro
465 470 475 480

Ser Val Pro Asp Ser Ile Asn Lys Pro Arg Tyr Cys Lys Lys Glu Lys
485 490 495

Lys Asp Gly Ile Thr Tyr Glu Gln Thr Arg Ala Cys Met Leu His Glu
500 505 510

Gln Pro Cys Pro Asp Pro Gln Asn Val Glu Gly Thr Val Thr Arg Tyr
515 520 525

Cys Asn Cys Gln Thr Ala Lys Trp Glu Thr Pro Asp Thr Thr Asn Cys
530 535 540

Thr His Arg Trp Val Ala Glu Met Glu Thr Ala Ile Lys Asp Asn Gln
545 550 555 560

Pro Val Glu Asp Ile Ser Ser Thr Val Asn Arg Gln Leu Lys Ser Thr
565 570 575

Ile Glu Arg Thr Leu Phe Gly Gly Asp Ile Thr Gly Thr Val Arg Leu
580 585 590

Ser Asn Asp Met Leu Ser Leu Ala Arg Asn Gln Phe Ser Val Leu Asn
595 600 605

Asp Arg Asn Leu Arg Glu Asn Lys Ala Arg Asn Phe Thr Glu Asn Leu
610 615 620

Gly Gly Ser Gly Asp Gln Leu Leu Ser Pro Val Ala Ala Thr Val Trp
625 630 635 640

Asp Gln Leu Ser Ser Thr Ile Arg Ile Gln His Ala Ser Lys Leu Met
645 650 655

Ser Val Leu Glu Gln Ser Val Leu Leu Leu Gly Asp Tyr Met Thr Asp
660 665 670

Gln Lys Leu Asn Leu Gln Tyr Ile Asn Trp Ala Met Glu Val Glu Arg
675 680 685

Ser Glu Pro Glu Val Gln Thr Phe Gly Ala Ala Ala Ser Pro Asn Val
690 695 700

Gln Asp Asp Met Gly Met Met Arg Val Met Ala Ala Ala Pro Pro Ala
705 710 715 720

Pro Gln Pro Glu Thr Asn Thr Thr Ile Met Phe Pro Ser Leu Lys Leu
725 730 735

Ser Pro Thr Ile Thr Leu Pro Ser Ala Ser Leu Leu Ser Ser Leu Ala
740 745 750

Ser Pro Thr Pro Val Ala Gly Gly Gly Pro Ser Ile Leu Ser Ser Phe
755 760 765

Gln Asp Asp Thr Pro Val Gly Met Ala Ser Thr Pro Asn Leu Asn Arg
770 775 780

Asn Pro Val Lys Leu Gly Tyr Tyr Ala Phe Ala Gly Phe Gly Gln Leu
785 790 795 800

Leu Asn Asn Asn Asn Asp His Thr Leu Ile Asn Ser Gln Val Ile Gly
805 810 815

Ala Ser Ile Gln Asn Ala Thr Gln Ser Val Thr Leu Pro Val Asp His
820 825 830

Pro Val Thr Phe Thr Phe Gln His Leu Thr Thr Lys Gly Val Ser Asn
835 840 845

Pro Arg Cys Val Tyr Trp Asp Leu Met Glu Ser Lys Trp Ser Thr Leu
850 855 860

Gly Cys Thr Leu Ile Ala Thr Ser Ser Asn Ser Ser Gln Cys Ser Cys
865 870 875 880

Thr His Leu Thr Ser Phe Ala Ile Leu Met Asp Ile Ser Gly Gln Val
885 890 895

Gly Arg Leu Ser Gly Gly Leu Ala Ser Ala Leu Asp Val Val Ser Thr
900 905 910

Ile Gly Cys Ala Ile Ser Ile Val Cys Leu Ala Leu Ser Val Cys Val
915 920 925

Phe Thr Phe Phe Arg Asn Leu Gln Asn Val Arg Asn Ser Ile His Arg
930 935 940

Asn Leu Cys Leu Cys Leu Leu Ile Ala Glu Leu Val Phe Val Ile Gly
945 950 955 960

Met Asp Arg Thr Gly Asn Arg Thr Gly Cys Gly Val Val Ala Ile Leu
965 970 975

Leu His Tyr Phe Phe Leu Ser Ser Phe Cys Trp Met Leu Leu Glu Gly
980 985 990

Tyr Gln Leu Tyr Met Met Leu Ile Gln Val Phe Glu Pro Asn Arg Thr
995 1000 1005

Arg Ile Phe Leu Tyr Tyr Leu Phe Cys Tyr Gly Thr Pro Ala Val
1010 1015 1020

Val Val Ala Ile Ser Ala Gly Ile Lys Trp Glu Asp Tyr Gly Thr
1025 1030 1035

Asp Ser Tyr Cys Trp Ile Asp Thr Ser Thr Pro Thr Ile Trp Ala
1040 1045 1050

Phe Val Ala Pro Ile Ile Val Ile Ile Ala Ala Asn Ile Ile Phe
1055 1060 1065

Leu Leu Ile Ala Leu Lys Val Val Leu Ser Val Gln Ser Arg Asp
1070 1075 1080

Arg Thr Lys Trp Gly Arg Ile Ile Gly Trp Leu Lys Gly Ser Ala
1085 1090 1095

Thr Leu Leu Cys Leu Leu Gly Ile Thr Trp Ile Phe Gly Phe Leu
1100 1105 1110

Thr Ala Val Lys Gly Gly Thr Gly Thr Ala Phe Ala Trp Ile Phe
1115 1120 1125

Thr Ile Leu Asn Cys Thr Gln Gly Ile Phe Ile Phe Val Leu His
1130 1135 1140

Val Val Leu Asn Glu Lys Val Arg Ala Ser Ile Val Arg Trp Leu
1145 1150 1155

Arg Thr Gly Ile Cys Cys Leu Pro Glu Thr Ser Ser Ala Ala Tyr
1160 1165 1170

Asn Ser Arg Ser Phe Leu Ser Ser Arg Gln Arg Ile Leu Asn Met
1175 1180 1185

Ile Lys Val Asn Gly His Ser Tyr Pro Ser Thr Ala Ser Thr Asp
1190 1195 1200

Asp Lys Glu Lys Gln Leu Thr Pro Ile Thr Lys Thr Thr Asp Trp
1205 1210 1215

Leu Ser Arg Leu Pro Asn Gln Asp Ser Val Ser Ile Pro Glu Ser
1220 1225 1230

Asn Phe Asn Asn Leu Asn Gly Thr Leu Glu Asn Ser Asn Leu Asn
1235 1240 1245

Ser Ala Glu Ile Lys Glu Glu Asp Glu Ile Pro Glu Leu Arg Arg
1250 1255 1260

Arg Val Thr Val Asp Leu Asn Pro Met Ile Val Ser Asn Asn Glu
1265 1270 1275

Ile Glu Arg Met Ser His Ala Ser Ser Asp Pro Arg Gly Ser Gln
1280 1285 1290

Ile Ile Glu Val Thr Ala Val Glu Lys Lys Ala Pro Val Lys Arg
1295 1300 1305

Ile Lys Phe Pro Leu Gly Ala Lys Gln Ser Glu Arg Gly Ser Gln
1310 1315 1320

His Arg Thr Lys Ala Lys His Gly Thr Gly Thr Leu Val Ser Pro
1325 1330 1335

Trp His Ile Val Thr Ala Ala His Leu Ile Gly Ile Ser Glu Asp
1340 1345 1350

Pro Leu Pro Asp Cys Asp Thr Gly Asn Leu Arg Glu Ala Tyr Phe
1355 1360 1365

Val Arg Asp Tyr Lys Asn Phe Val Ala Phe Val Asn Val Thr Cys
1370 1375 1380

Ala Val Pro Glu Met Cys Lys Gly Leu His Arg Lys Asp Met Phe
1385 1390 1395

Lys Pro Leu Ala Ile Lys Ser Leu Tyr Ile Arg Lys Gly Tyr Val
1400 1405 1410

Gly Asp Gly Cys Ile Asp Arg Glu Ser Phe Asn Asp Ile Ala Val
1415 1420 1425

Phe Glu Leu Glu Glu Pro Ile Glu Phe Ser Lys Asp Ile Phe Pro
1430 1435 1440

Ala Cys Leu Pro Ser Ala Pro Lys Ile Pro Arg Ile Arg Glu Thr
1445 1450 1455

Gly Tyr Lys Leu Phe Gly Tyr Gly Arg Asp Pro Ser Asp Ser Val
1460 1465 1470

Leu Glu Ser Gly Lys Leu Lys Ser Leu Tyr Ser Phe Val Ala Glu
1475 1480 1485

Cys Ser Asp Asp Phe Pro Tyr Gly Gly Val Tyr Cys Thr Ser Ala
1490 1495 1500

Val Asn Arg Gly Leu Ser Cys Asp Gly Asp Ser Gly Ser Gly Val
1505 1510 1515

Val Arg Thr Ser Asp Thr Arg Asn Val Gln Val Leu Val Gly Val
1520 1525 1530

Leu Ser Ala Gly Met Pro Cys Pro Glu Leu Tyr Asp Thr His Asn
1535 1540 1545

Arg Gln Arg Gln Gln Arg Arg Gln Leu Thr Gln Glu Thr Asp Leu
1550 1555 1560

Leu Val Asp Val Ser Ala His Val Asp Phe Phe Cys Thr Cys Cys
1565 1570 1575

Gly Met Cys Ser
1580

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<211> 198
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<213> Homo sapiens

<400> 12

Met Glu Thr Tyr Ser Leu Ser Leu Gly Asn Gln Ser Val Val Glu Pro
1 5 10 15

Asn Ile Ala Ile Gln Ser Ala Asn Phe Ser Ser Glu Asn Ala Val Gly
20 25 30

Pro Ser Asn Val Arg Phe Ser Val Gln Lys Gly Ala Ser Ser Ser Leu
35 40 45

Val Ser Ser Ser Thr Phe Ile His Thr Asn Val Asp Gly Leu Asn Pro
50 55 60

Asp Ala Gln Thr Glu Leu Gln Val Leu Leu Asn Met Thr Lys Asn Tyr
65 70 75 80

Thr Lys Thr Cys Gly Phe Val Val Tyr Gln Asn Asp Lys Leu Phe Gln
85 90 95

Ser Lys Thr Phe Thr Ala Lys Ser Asp Phe Ser Gln Lys Ile Ile Ser
100 105 110

Ser Lys Thr Asp Glu Asn Glu Gln Asp Gln Ser Ala Ser Val Asp Met
115 120 125

Val Phe Ser Pro Lys Tyr Asn Gln Lys Glu Phe Gln Leu Tyr Ser Tyr
130 135 140

Ala Cys Val Tyr Trp Asn Leu Ser Ala Lys Asp Trp Asp Thr Tyr Gly
145 150 155 160

Cys Gln Lys Asp Lys Gly Thr Asp Gly Phe Leu Arg Cys Arg Cys Asn
165 170 175

His Thr Thr Asn Phe Ala Val Leu Met Thr Phe Lys Lys Asp Tyr Gln
180 185 190

Tyr Pro Lys Ser Leu Asp
195

<210> 13
<211> 10
<212> PRT
<213> Homo sapiens

<400> 13

Gln Ile Val Thr Arg Lys Val Arg Lys Thr
1 5 10

<210> 14
<211> 38
<212> PRT
<213> Homo sapiens

<400> 14

Glu Asn Ser Asn Lys Asn Leu Gln Thr Ser Asp Gly Asp Ile Asn Asn
1 5 10 15

Ile Asp Phe Asp Asn Asn Asp Ile Pro Arg Thr Asp Thr Ile Asn Ile
20 25 30

Pro Asn Pro Met Cys Thr
35

<210> 15
<211> 10
<212> PRT
<213> Homo sapiens

<400> 15

Ile Arg Thr Met Lys Pro Leu Pro Arg His
1 5 10

<210> 16
<211> 41
<212> PRT
<213> Homo sapiens

<400> 16

Thr Val Gly Val Ile Tyr Ser Gln Asn Gly Asn Asn Pro Gln Trp Glu
1 5 10 15

Leu Asp Tyr Arg Gln Glu Lys Ile Cys Trp Leu Ala Ile Pro Glu Pro
20 25 30

Asn Gly Val Ile Lys Ser Pro Leu Leu
35 40

<210> 17
<211> 25
<212> PRT
<213> Homo sapiens

<400> 17

Thr Ile Ser Ile Lys Val Leu Trp Lys Asn Asn Gln Asn Leu Thr Ser
1 5 10 15

Thr Lys Lys Val Ser Ser Met Lys Lys
20 25

<210> 18
<211> 6
<212> PRT
<213> Homo sapiens

<400> 18

Asn Asp Asp Ser Ile Arg
1 5

<210> 19
<211> 78
<212> PRT
<213> Homo sapiens

<400> 19

Tyr Thr Val Arg Thr Lys Val Phe Gln Ser Glu Ala Ser Lys Val Leu
1 5 10 15

Met Leu Leu Ser Ser Ile Gly Arg Arg Lys Ser Leu Pro Ser Val Thr
20 25 30

Arg Pro Arg Leu Arg Val Lys Met Tyr Asn Phe Leu Arg Ser Leu Pro
35 40 45

Thr Leu His Glu Arg Phe Arg Leu Leu Glu Thr Ser Pro Ser Thr Glu
50 55 60

Glu Ile Thr Leu Ser Glu Ser Asp Asn Ala Lys Glu Ser Ile
65 70 75

<210> 20
<211> 38
<212> DNA
<213> Artificial

<220>
<223> HGPRBMY6 5' PRIMER

<400> 20
cgggatgcct agatgctttc ctttgcattg tcactttc 38

<210> 21
<211> 66
<212> DNA
<213> Artificial

<220>
<223> HGPRBMY6 3' FLAG TAG PRIMER

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cggggatccc tacttgtcgt cgtcgtcctt gtagtccatg atgctttcct ttgcattgtc 60
actttc 66

<210> 22
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<212> DNA
<213> Artificial

<220>
<223> HGPRBMY6 Forward primer 383

<400> 22
cagacaccat taacatcccg aat 23

<210> 23
<211> 22
<212> DNA
<213> Artificial

<220>
<223> HGPRBMY6 Reverse primer 384

<400> 23
agaatgaaat gccgaggaag ag 22

<210> 24
<211> 17
<212> DNA
<213> Artificial

<220>
<223> GAPDH-F3 forward primer

<400> 24
agccgagcca catcgct 17

<210> 25
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<212> DNA
<213> Artificial

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<223> GAPDH-R1 reverse primer

<400> 25
gtgaccaggc gcccaatac 19

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<211> 28
<212> DNA
<213> Homo sapiens

<400> 26
caaatccgtt gactccgacc ttcacctt 28

<210> 27
<211> 13
<212> PRT
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<400> 27

Gln Ser Lys Thr Phe Thr Ala Lys Ser Asp Phe Ser Gln
1 5 10

<210> 28
<211> 13
<212> PRT
<213> Homo sapiens

<400> 28

Ala Lys Ser Asp Phe Ser Gln Lys Ile Ile Ser Ser Lys
1 5 10

<210> 29
<211> 13
<212> PRT
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<400> 29

Ser Gln Lys Ile Ile Ser Ser Lys Thr Asp Glu Asn Glu
1 5 10

<210> 30
<211> 13
<212> PRT
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<400> 30

Val Asp Met Val Phe Ser Pro Lys Tyr Asn Gln Lys Glu
1 5 10

<210> 31
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<212> PRT
<213> Homo sapiens

<400> 31

Val Tyr Trp Asn Leu Ser Ala Lys Asp Trp Asp Thr Tyr
1 5 10

<210> 32
<211> 13
<212> PRT
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<400> 32

Phe Ala Val Leu Met Thr Phe Lys Lys Asp Tyr Gln Tyr
1 5 10

<210> 33
<211> 13

<212> PRT
<213> Homo sapiens

<400> 33

Ile Phe Gln Ile Val Thr Arg Lys Val Arg Lys Thr Ser
1 5 10

<210> 34
<211> 13
<212> PRT
<213> Homo sapiens

<400> 34

Phe Gly Ile Glu Asn Ser Asn Lys Asn Leu Gln Thr Ser
1 5 10

<210> 35
<211> 13
<212> PRT
<213> Homo sapiens

<400> 35

Tyr Leu Leu Ile Arg Thr Met Lys Pro Leu Pro Arg His
1 5 10

<210> 36
<211> 13
<212> PRT
<213> Homo sapiens

<400> 36

Met Phe Ile Thr Ile Ser Ile Lys Val Leu Trp Lys Asn
1 5 10

<210> 37
<211> 13
<212> PRT
<213> Homo sapiens

<400> 37

Asn Gln Asn Leu Thr Ser Thr Lys Lys Val Ser Ser Met
1 5 10

<210> 38
<211> 13
<212> PRT
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<400> 38

Gln Asn Leu Thr Ser Thr Lys Lys Val Ser Ser Met Lys
1 5 10

<210> 39
<211> 13
<212> PRT
<213> Homo sapiens

<400> 39

Thr Lys Lys Val Ser Ser Met Lys Lys Ile Val Ser Thr
1 5 10

<210> 40
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<212> PRT
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<400> 40

Leu Val Asn Asp Asp Ser Ile Arg Ile Val Phe Ser Tyr
1 5 10

<210> 41
<211> 13
<212> PRT
<213> Homo sapiens

<400> 41

Ile Phe Ile Leu Tyr Thr Val Arg Thr Lys Val Phe Gln
1 5 10

<210> 42
<211> 14
<212> PRT
<213> Homo sapiens

<400> 42

Ser Leu Gly Asn Gln Ser Val Val Glu Pro Asn Ile Ala Ile
1 5 10

<210> 43
<211> 14
<212> PRT
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<400> 43

Ser Thr Phe Ile His Thr Asn Val Asp Gly Leu Asn Pro Asp
1 5 10

<210> 44
<211> 14
<212> PRT
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<400> 44

Gln Lys Ile Ile Ser Ser Lys Thr Asp Glu Asn Glu Gln Asp
1 5 10

<210> 45
<211> 14
<212> PRT
<213> Homo sapiens

<400> 45

Val Tyr Trp Asn Leu Ser Ala Lys Asp Trp Asp Thr Tyr Gly
1 5 10

<210> 46
<211> 14
<212> PRT
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<400> 46

Lys Asn Leu Gln Thr Ser Asp Gly Asp Ile Asn Asn Ile Asp
1 5 10

<210> 47
<211> 14
<212> PRT
<213> Homo sapiens

<400> 47

Leu Arg Ser Leu Pro Thr Leu His Glu Arg Phe Arg Leu Leu
1 5 10

<210> 48
<211> 14
<212> PRT
<213> Homo sapiens

<400> 48

Leu Glu Thr Ser Pro Ser Thr Glu Glu Ile Thr Leu Ser Glu
1 5 10

<210> 49
<211> 14
<212> PRT
<213> Homo sapiens

<400> 49

Ser Thr Glu Glu Ile Thr Leu Ser Glu Ser Asp Asn Ala Lys
1 5 10

<210> 50
<211> 14
<212> PRT

<213> Homo sapiens

<400> 50

Glu Glu Ile Thr Leu Ser Glu Ser Asp Asn Ala Lys Glu Ser
1 5 10

<210> 51
<211> 14
<212> PRT
<213> Homo sapiens

<400> 51

Val Thr Arg Lys Val Arg Lys Thr Ser Val Thr Trp Val Leu
1 5 10

<210> 52
<211> 14
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